

REMARKS/ARGUMENTS

The amendment to Claim 1 is supported by Claims 1 and 8 as originally filed, by specification page 2, lines 21-25, and by page 3, lines 12-17. Amendments to Claims 2-7 improve readability and address formal issues. The amendment to Claim 8 is supported by the Claim as originally filed and by Claim 9. Withdrawn Claims 10-13 have been placed in Jepson format.<sup>1</sup> Finally, new Claims 14-20 are supported at specification page 2, lines 10-16 and page 4, lines 13-15. No new matter has been entered.

The anticipation rejection of Claims 8 and 9 over Vogel is traversed.

As noted by the above amendment, applicants have specified that their claimed catalyst support or diluent consists of alumina containing at least 0.03 g of titanium therein, expressed in metal form, per kg of alumina. As noted both throughout the specification and as particularly understood by reference to, e.g., specification page 2, lines 21-25 and the several Examples, the titanium referred to in pending Claim 8 (and new Claims 18-20 dependent thereon) is titanium contained within the alumina itself, and not titanium that is deposited on the surface thereof. That is, in present Claim 8 the titanium is *not* an active catalyst element.

To the contrary, the titanium in Vogel is specifically “place[d] upon the surface of the alumina.” See column 1, lines 54-56 of the reference. Clearly, in Vogel the titanium is an active element, is deposited on the surface of the alumina, and is not present as required in Claim 8 herein. Vogel thus does not anticipate the claims. Moreover, the reference does not disclose or suggest anything that would lead one of ordinary skill in the art to the presently claimed catalyst support or diluent of Claim 8, as Vogel clearly teaches surface-supported titanium on alumina with titanium clearly being present in the Vogel catalyst as an active

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<sup>1</sup> Applicants appreciate the indication at page 2, middle, of the outstanding Official Action that these Claims will be rejoined and allowed upon the allowance of the elected Claims.

element. To alter Vogel in the manner claimed herein would be contrary to the express purpose of the reference, and thus would be improper. The rejection should be withdrawn.

For similar reasons, the obviousness rejection of pending Claims 1-4 over Vogel in view of Dautzenberg, is traversed.

The titanium specified in catalyst Claim 1 is contained within the alumina support, and is not an active element of the catalyst. As shown above, in Vogel the titanium is deposited on the surface of the alumina, and is an active element -- essentially the exact opposite arrangement as compared with the presently claimed catalyst. Moreover, and as recognized by the Examiner, Vogel does not suggest the use of copper as an active element. While Dautzenberg discloses "acceptors" that are capable of binding sulfur oxide gases and which are prepared by impregnating an alumina-containing carrier with a copper compound (see column 1, lines 33-38 and column 2, lines 6-12 of Dautzenberg), at best the copper in Dautzenberg is present on the surface of the alumina, like the titanium in Vogel. Neither reference identified the importance of the alumina support itself containing, therein, at least 0.03 g of titanium as claimed. As is evident from applicants' Examples herein, beginning at specification page 7, catalysts similar to those presently claimed but containing less than 0.03 g of titanium in the alumina support performed quite poorly as compared to the presently claimed catalysts. As this improved performance is nowhere recognized or suggested in either Vogel or Dautzenberg, and because neither reference teaches or suggests a catalyst comprising copper and at least one other active element deposited on an alumina support, the alumina support comprising at least 0.03 g of titanium therein per kg of alumina, the rejection should be withdrawn.

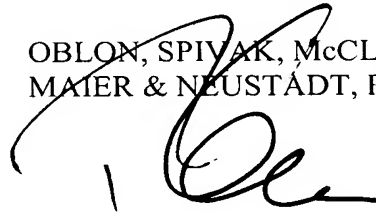
Talsma, cited to supply the missing active elements listed in present Claims 5-7, does not make up for the fundamental defects of Vogel and Dautzenberg. While Talsma lists several catalytically active metals, for example in the paragraph bridging columns 1 and 2 of

the reference, these active elements are supported on the surface of a porous refractory body in a manner similar to that described in Vogel and Dautzenberg. See, for example, column 7, lines 13ff of the reference regarding the deposit of the catalytically active metal component on the catalyst support.

Accordingly, and for the reasons explained above, one of ordinary skill in the art would not have been led to the present invention as described in the pending Claims herein in view of the cited references, even when taken in combination. As such, the outstanding rejections should be reconsidered and withdrawn, and a Notice of Allowance inclusive of all Claims pending herein should be issued. The same is respectfully requested.

Respectfully submitted,

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